



MONITORING AND CONTROL OF FRUIT FLIES IN ORCHARDS IN TOGO

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INTRODUCTION



- **The production and marketing of horticultural products are threatened by the attacks of bio-aggressors, including insects, notably the fruit flies (Diptera: Tephritidae).**
- **These pests are a major concern because they are the cause of production losses, export interception and lower income for mango producers**
- **In order to solve this problem, ECOWAS has initiated a sub-regional project entitled "Support project to the Regional plan for the monitoring and control of fruit flies (SPRMF) in West Africa" in 11 countries.**



Goals and components of the project



- **The overall goal of this project is to increase substantially the income of fruits and vegetables producers (especially smallholders), in order to contribute to food security and poverty reduction in the sub-region.**
- **The project has four (4) components namely:**
 - ❖ **(i) monitoring;**
 - ❖ **(ii) control;**
 - ❖ **(iii) capacity-building and**
 - ❖ **(iv) research.**



IMPLEMENTATION OF ACTIVITIES : **monitoring**



- **In the implementation of this component, several activities were carried out, namely:**
- **training of 20 technicians in monitoring;**
- **establishment of 20 surveillance orchards, according to the system set up by SPRMF ;**
- **training of 300 producers in surveillance of orchards ;**
- **training of 50 supervisors in surveillance of orchards;**
- **training of 5 laboratory technicians in taxonomy of fruit flies;**



IMPLEMENTATION OF ACTIVITIES : **monitoring**

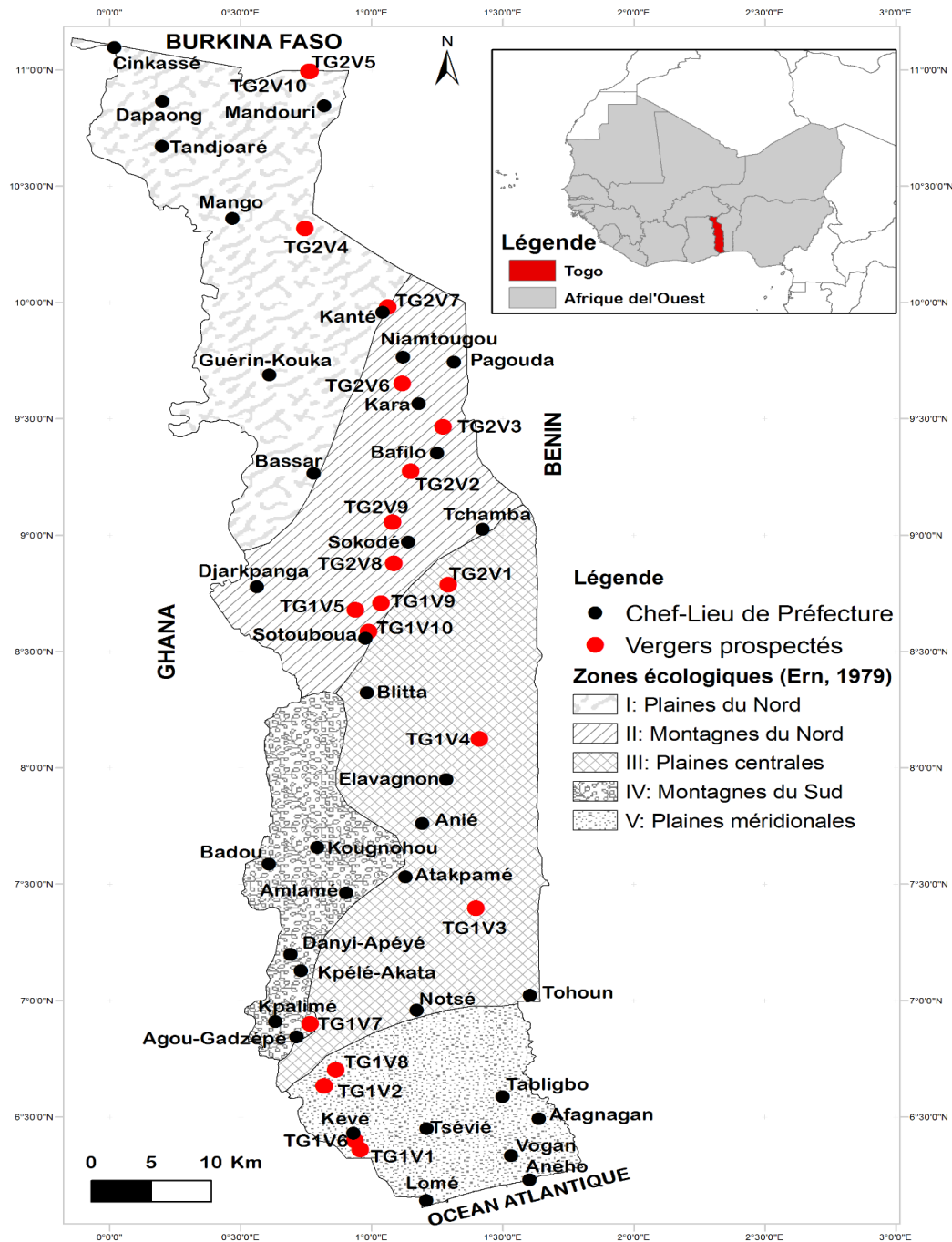


- **study on the varietal composition of the orchards in Togo (identification of varieties, the date of flowering, maturity, etc.);**
- **acquisition of laboratory equipment and materials to strengthen laboratory capacities for fruit flies identification;**
- **organization of national forum for the capitalization and the sustainability of the achievements of fruit flies surveillance.**



MONITORING DEVICE

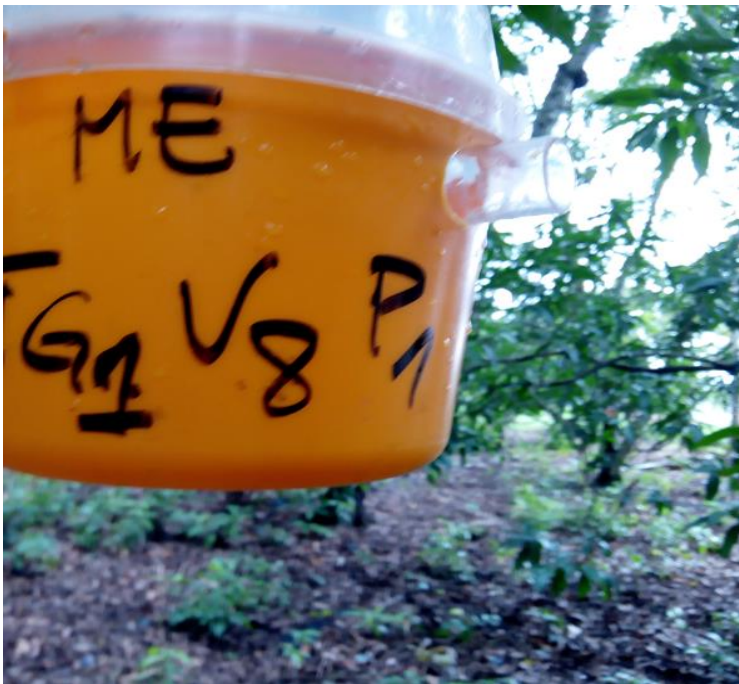
- Traps with different types of parapheromones (**one trap with Methyl Eugenol, one with Cuelure, one with Tridmedlure and the other one with Terpinyl Acetate**) were set up in 20 surveillance orchards from May 3 to 8, 2018.
- **organophosphate chemical insecticide, DDVP or dichlorvos (2, 2-dichlorovinyl dimethyl phosphate)** has been used to kill attracted flies in the traps.
- a total of 320 traps has been set up in Togo. Traps collections were conducted weekly from May 25, 2018, and fruit flies captured by parapheromones are stored in ethanol at 70°.
- The data were saved in a database (**DataWizzard**) and process using the software (**FruitFlyModelECOWAS**) designed for this purpose. Data analysis helps to deliver alert message and decision-making for mango producers





SURVEILLANCE TRAPS

- The parapheromones and the chemical insecticide were renewed every 6 weeks to keep the effectiveness of the trap.





IMPLEMENTATION OF ACTIVITIES :

control

- **In regards to the control component, activities carried out are the following :**
- ❖ **training of 20 national trainers in fruit flies control;**
- ❖ **establishment of 8 pilots orchards;**
- ❖ **training of 120 producers in fruit flies control;**
- ❖ **training of 50 supervisors in fruit flies control;**
- ❖ **training of 20 technicians on pilot orchard management and post-harvest techniques;**
- ❖ **training of 100 harvesters on post-harvest treatment;**
- ❖ **training of 40 phytosanitary inspectors on mangos inspection techniques;**
- ❖ **broadcasting of radio messages on the techniques of fruit flies control ;**
- ❖ **treatment of 190 ha with food baits ;**
- ❖ **organization of national forum for the capitalization and the sustainability of the achievements of fruit flies control.**





IMPLEMENTATION OF ACTIVITIES :

capacity building

- **The activities of capacity building component include:**
- ❖ **support for the setting up of the project Steering Committee (CN);**
- ❖ **training of the project technical unit on administrative and financial procedures, and monitoring and evaluation of the project;**
- ❖ **participation of the project's technical unit members in regional trainings on the control, monitoring, sampling during mango inspection, taxonomy of fruit flies and information/sensitization of actors on EU new regulation;**
- ❖ **(iv) the Participation of CN members to the preparatory meetings / campaign report during the project implementation.**



THE FACTORS OF THE PROJECT SUCCESS

- **The factors that have contributed to the success of the project are:**
 - ❖ **the establishment of a national Committee for the project management (CN);**
 - ❖ **training of the actors involved in the project implementation;**
 - ❖ **recruitment of technicians by CN to collect trap catches in 20 monitoring orchards and to whom compensation is paid for the work done;**
 - ❖ **the domiciliation of the Fund in an account dedicated to the project and not in Togolese public Treasury;**
 - ❖ **the disbursement of the project funds by the National Committee with regional coordination agreement;**
 - ❖ **the free distribution of food baits (M3) to producers during the first year of project implementation;**
 - ❖ **the establishment of pilot orchards for fruit flies control.**



THE DIFFICULTIES ENCOUNTERED

- **The difficulties encountered during the implementation of the project are:**
- ❖ **absence of overlapping of mango producers in association or inter-professional organization;**
- ❖ **destruction of some orchards because of heavy attacks of fruits by flies;**
- ❖ **absence of approved insecticides to control fruit flies in Togo;**
- ❖ **the substantial reduction of the budget initially allocated to Togo;**
- ❖ **non-payment of the national counterpart to the project.**



SOLUTIONS TO DIFFICULTIES

- **The following measures were set to solve the difficulties encountered in the project implementation :**
- ❖ **organization of producers in associations following the production areas, failing to organize them into interprofessional at national level;**
- ❖ **the establishment of pilot orchards serving as farmer field schools;**
- ❖ **import with special authorization of food baits (M3) to control fruit flies;**
- ❖ **reduction of project targets and removal of some activities.**



THE PERSPECTIVES

➤ **The prospects include:**

- ❖ **continue fruit flies monitoring in the 20 orchards;**
- ❖ **continue the broadcasting of alerts to producers;**
- ❖ **farmers training in control methods and their equipment in harvesting cane.;**
- ❖ **producer awareness on planting new orchards;**
- ❖ **organize actors in mango sector into an interprofessional organization;**
- ❖ **encourage pesticide sellers to register fruit fly control products in Togo;**
- ❖ **Advocate the government for a budget to control fruit flies in Togo.**



CONCLUSION

- **In general, it is important to note that the implementation of the project allowed to:**
- ✓ **follow fruit flies population dynamics in different agroecological areas in Togo;**
- ✓ **determine mangos export period to the EU and other countries in the sub-region,**
- ✓ **especially to deliver messages of alerts as emergency SMS sent to producers to treat their orchards on time,**
- ✓ **and effectively control fruit flies.**



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